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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/056,192

01/23/2002

Glenn W. Gengel

03424P056

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12/07/2004

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EXAMINER

WILLE, DOUGLAS A

ART UNIT

PAPER NUMBER

2814

DATE MAILED: 12/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/056,192

Applicant(s)

GENGEL ET AL.

Examiner

Douglas A Wille

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-104 is/are pending in the application.
- 4a) Of the above claim(s) 23-36, 61-98, 103 and 104 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22, 37-60 and 99-102 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1 – 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 1 refers to the integrated circuit as being embedded in a receptor but the specification does not describe a receptor and it cannot be determined what a receptor is.

Correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1 – 3, 5, 6, 8, 13, 19, 20, 2, 37, 38, 40 – 42, 48, 53, 56 and 60 are rejected under 35 U.S.C. 102(e) as being anticipated by Kayanakis et al.

6. With respect to claims 1 and 37, 40, 60, Kayanakis et al. show (see Figure 4 and column 2, line 66 et seq.) a substrate 32 with an integrated circuit 40 embedded in the substrate, a dielectric layer 34, a conductive medium 38 attached to the IC and a large scale component 38,

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36 on a substrate 28. Note that the method of formation carries no weight in a claim drawn to a device.

7. With respect to claim 2, 48, the large scale component is an antenna.
8. With respect to claim 3, the conductive medium is a glue (column 4, line 18).
9. With respect to claim 5 56, the term nanoblock refers to a method of formation and any chip such as circuit 40 is equivalent.
10. With respect to claim 6, 41, the antenna is electrically coupled through the glue.
11. With respect to claim 8, the antenna is coupled to the circuit with the glue.
12. With respect to claim 13, 53 the antenna is a sensor.
13. With respect to claim 19, the conductive epoxy would normally be a metal filled resin.
14. With respect to claim 20, Kayanakis et al. show a conductive polymer (column 4, line 18).
15. With respect to claim 42, Kayanakis et al. show a conductive ink which could be silver ink.
16. With respect to claim 44, Kayanakis et al. shows conductive epoxy which is a resin with metal particles.
17. With respect to claim 45, Kayanakis et al. show the conductor may be a conductive polymer.
18. With respect to claims 22 and 38, the card is plastic (column 3, line 19) and is therefore flexible.

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. Claims 4, 39, 43 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kayanakis et al. in view of Golwalkar et al.

21. With respect to claims 4, 39, 43 and 46, Kayanakis et al. show the electrical connection is made with glue and Golwalkar et al. show (paragraph [0058]) that an electrical connection can be made with solder, conductive tape or conductive epoxy. Since as shown by Golwalkar et al. these connection methods are equivalent, the use of any of them in the Kayanakis et al. device would be obvious.

22. Claims 7, 21, 47, 59 and 99 - 102 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kayanakis et al.

23. With respect to claims 7 and 59, Kayankis et al. do not specify the frequency of operation but since there is no limitation expressed it would be obvious to use the circuit for any frequency.

24. With respect to claim 21 and 47, Acquadag is a well known carbon based conductor which could be printed and its use would be an obvious art equivalent.

25. With respect to 99 - 102 it would be obvious to use a thermosetting polymer since it is well known in the art.

26. Claims 9 - 12, 55, 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kayanakis et al. in view of Grace et al.

27. With respect to claim 9, 55 and 57, Kayanakis et al. show the circuit as being attached to an antenna. Grace et al. show that a similar circuit structure could be attached to a display (see Figure 12 and column 16, line 53) without giving details of fabrication. It would be obvious to

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use the Kayanakis et al. structure for a display as shown by Grace et al. to provide details not provided.

28. With respect to claims 10 and 11, the combined device would be connected through the conductive medium.

29. With respect to claim 12, Kayanakis et al. show the glue can be ink which would be printed.

30. Claims 14 – 17, 49 - 52, 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kayanakis et al. in view of Tuttle et al.

31. With respect to claims 14, 15, 17 and 49 – 51, Tuttle et al. show that a similar structure (see Figure 3 and column 5, line 66 et seq.) can have a battery connected to the circuit along with an antenna. The presence of the battery provides a sleep mode capability (column 2, line 58). It would have been obvious to include a battery with the antenna to provide the sleep mode.

32. With respect to claims 16 and 52, it would be obvious to use any other battery that can be embedded.

33. With respect to claim 48, Tuttle et al. show an RFID.

34. Claims 18 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kayanakis et al. in view of Tuttle et al. the in view of Patterson et al.

35. Kayanakis et al show the basic device and Tuttle et al. show that the circuit can contain logic functions (column 2, line 43). Patterson et al. show a similar structure where the circuits are connected to a circuit board and the circuits can be interconnected. It would be obvious to extend the Kayanakis et al. device as extended by Tuttle et al. to include the logic functions in both the substrate and the superstrate to include greater variety of functional applications.

Information Disclosure Statement

1. 37 CFR 1.56 declares that Applicant has a duty to disclose all information known to be material to patentability and it is assumed that Applicant's IDSs dated 14 August 2003 and 23 January 2002 were submitted to fulfill that duty. However, a preliminary review shows that the IDSs contain references that are not material to patentability and are superfluous to the determination of patentability. Since review of voluminous non-pertinent material places a burden on this Office, Applicant's IDS will therefore not be considered.

2. In support of this decision the following is provided.

3. MPEP 609 states:

“Although a concise explanation of the relevance of the information is not required for English language information, Applicants are encouraged to provide a concise explanation of why the English language information is being submitted and how it is understood to be relevant. Concise explanations (especially those which point out the relevant pages and lines) are helpful to the Office, particularly where documents are lengthy and complex and Applicant is aware of a section that is highly relevant to patentability or where a large number of documents are submitted and Applicant is aware that one or more are highly relevant to patentability.”

See also MPEP section 2004, paragraph 13:

“It is desirable to avoid the submission of long lists of documents if it can be avoided. Eliminate clearly irrelevant and marginally pertinent cumulative information. If a long list is submitted, highlight those documents which have been specifically brought to applicant's attention and/or are known to be of most significance. See *Penn Yan Boats*,

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Inc v. Sea lark Boats, Inc, 359 F. Supp. 948, 175 USPQ (S.D. Fla. 1972), aff'd, 479

F.2D 1338, 178 USPQ 577 (5th Cir. 1973), cert. denied, 414 U.S. 874 (1974). But cf.

Molins PLC v. Textron Inc., 48 F.3D 1172, 33 USPQ 2d 1823 (Fed. Cir. 1995).

See also *Ex Parte Morning Surf Corporation* (BDPatApp&Int) 230 USPQ 446, 1986:

“On the other hand, to inundate the Examiner with a large volume of prior art that is not material may obscure a single reference that is material and thus may be effectively as improper as withholding a material reference. *Penn Yan Boats, Inc v. Sea lark Boats, Inc*, 359 F. Supp. 948, 175 USPQ (S.D. Fla. 1972.”

4. Should Applicant wish to have the IDS considered, Applicant is invited to provide a description of how each reference is material to patentability.

Conclusion

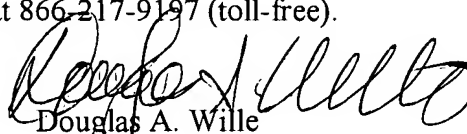
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas A Wille whose telephone number is (571) 272-1721.

The examiner can normally be reached on M-F (6:15-2:45).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on (571) 272-1705. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Douglas A. Wille
Primary Examiner